

Case 3673***Geophilus alpinus* Meinert, 1870 (Chilopoda): proposed conservation of the specific name**

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Abstract. The purpose of this application, under Article 23.9.3 of the Code, is to conserve the specific name *Geophilus alpinus* Meinert, 1870 for a widespread European species of geophilomorph centipedes. This name, currently in use, is threatened by the subjective synonyms *Geophilus impressus* C.L. Koch, 1847 and *Geophilus palustris* C.L. Koch, 1863, which have been disregarded since 1874 and 1882 respectively.

Keywords. Nomenclature; taxonomy; Chilopoda; *Geophilus*; *Geophilus alpinus*; *Geophilus impressus*; *Geophilus palustris*; geophilomorph centipedes.

1. C.L. Koch (1847, p. 187) described *Geophilus impressus* based upon a single specimen from near Pula, Croatia, but the original description was so poor that the true identity of the species remained uncertain to all subsequent authors. As a consequence, no other specimen was assigned to *G. impressus*. Meinert (1870, p. 82), followed by Latzel (1880), considered *G. impressus* as a synonym of *Geophilus proximus* C.L. Koch, 1847, but this was based on an incorrect concept of *G. proximus* that actually corresponds to *G. alpinus* Meinert, 1870 (Bonato & Minelli, 2014). After its original description, *G. impressus* was cited only rarely as valid (to the best of our knowledge, in another 6 papers). After Fanzago (1874), it was registered only as the potentially valid name of a species of uncertain identity in a few monographs (Attems, 1929), checklists (Kos, 1992, 1996; Stoev, 1997) and electronic databases (Minelli & Foddai, 2007).

2. In a later work, C.L. Koch (1863, p. 71) described also *Geophilus palustris*, based upon specimens from near Regensburg, Germany, and also in this case the original description was too vague to allow an easy assessment of the true identity of the species (e.g. Porat, 1889; Minelli, 1992; Jeekel, 1999). Only Palmberg (1866), Fanzago (1876, 1882) and Fedrizzi (1876) identified other specimens as *G. palustris*. Instead, since Stuxberg (1871, p. 509), *G. palustris* was most often considered as a synonym of *G. proximus*, but this was based on an incorrect concept of *G. proximus* as in the case of *G. impressus*. Likewise, after its original description, *G. palustris* was cited only rarely as valid (to the best of our knowledge, in another 6 papers) and, after Fanzago (1882), only as the potentially valid name of a species of uncertain identity (Attems, 1929).

3. Meinert (1870, p. 76) described *Geophilus alpinus* based upon specimens from two localities, Bagni di Razzes in Italy and Tübingen in Germany, but the original description was not sufficient to identify the species confidently. Since Latzel (1880,

p. 184), most authors considered *G. alpinus* to be a junior synonym of *G. proximus* (following a concept of the latter nominal species different from the current one, as explained above), whereas others cited it merely as a species of uncertain identity (Folkmanová, 1928; Attems, 1929; Jeekel, 1999). Only recently, Spelda (2006) demonstrated definitively that *G. alpinus* is the correct name for the species that had been traditionally known as *G. insculptus* Attems, 1895 (described in Attems, 1895, p. 163). Since then, most authors have adopted *G. alpinus* as the valid name for this species (Bonato & Minelli, 2014) and up to now it has been used as valid by another 15 authors in another 23 papers (e.g. Dányi, 2008, 2009, 2010; Bonato & Minelli, 2009, 2011, 2014; Leśniewska et al., 2009; Reip & Voigtländer, 2009; Minelli et al., 2010; Minelli & Zapparoli, 2011; Voigtländer et al., 2011; Zapparoli & Iorio, 2012; Chipman et al., 2013; Simaiakis et al., 2013).

4. Recently, we provided arguments for recognizing both *G. impressus* and *G. palustris* confidently as synonyms of *G. alpinus* (Bonato & Minelli, 2014). However, despite the fact that both *G. impressus* and *G. palustris* are senior synonyms of *G. alpinus*, we think that resurrecting one of these names would not serve nomenclatural universality and stability because both remained practically unused since 1882, whereas *G. alpinus* is currently in use as the valid name for this species. However, the two conditions for the reversal of precedence (Article 23.9.1 of the Code) are not fully met: both *G. impressus* and *G. palustris* have been used as valid also after 1899 (Article 23.9.1.1), although merely for a species of uncertain identity; additionally, *G. alpinus* does not satisfy Article 23.9.1.2 of the Code, although it has been used in at least 23 works by more than 15 authors between 1999 and now. To maintain stability, we advocate the conservation of *G. alpinus* over both *G. impressus* and *G. palustris*.

5. The International Commission on Zoological Nomenclature is accordingly asked:

- (1) to use its plenary power to suppress the following specific names for the purposes of the Principle of Priority but not for those of the Principle of Homonymy:
 - (a) *impressus* C.L. Koch, 1847, as published in the binomen *Geophilus impressus*;
 - (b) *palustris* C.L. Koch, 1863, as published in the binomen *Geophilus palustris*;
- (2) to place on the Official List of Specific Names in Zoology the name *alpinus* Meinert, 1870, as published in the binomen *Geophilus alpinus*;
- (3) to place on the Official Index of Rejected and Invalid Specific Names in Zoology the following names:
 - (a) *impressus* C.L. Koch, 1847, as published in the binomen *Geophilus impressus* and as suppressed in (1)(a) above;
 - (b) *palustris* C.L. Koch, 1863, as published in the binomen *Geophilus palustris* and as suppressed in (1)(b) above.

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Acknowledgement of receipt of this application was published in BZN 72: 1.

Comments on this case are invited for publication (subject to editing) in the *Bulletin*; they should be sent to I.C.Z.N., Natural History Museum, Cromwell Road, London SW7 5BD, U.K. (e-mail: iczn@nhm.ac.uk).